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ABSTRACT

Despite recent efforts to provide equal education, agreement exists that blacks, females, and disadvantaged students as a group are outperformed in mathematics and science by white middle-class students. To help disadvantaged students, the Duval County Public Schools (Jacksonville, Florida) have developed a "Mayo Clinic" approach to education that treats students as individuals with unique circumstances. This paper summarizes successful features of the program and evaluates its progress. Duval eliminated social promotion factors by implementing a plan requiring students to master specific competencies before progressing to the next grade level. To address the gap between black and white students' Scholastic Aptitude Test scores, the Stimulating Aptitude Skills project was developed. Students electing to participate in the test preparation program were evaluated to determine particular deficiency areas, and an instructional program was developed based on the diagnosis. Black students taking the course scored significantly higher on the SAT. The program is also useful in identifying and assisting potential dropouts and retrieving school leavers. The biggest project to emerge from the gap study is Project BASE (Blacks for Academic Success in Education), which involves parents, churches, and businesses in helping students adopt beneficial lifestyle changes. The program has succeeded in changing teachers' attitudes, expectations, and instructional approaches. Black students' achievement gains continue to be remarkable, and more are joining Project BASE each year.
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**Closing the Education Gap:
A Mayo Clinic Approach to Academic Achievement**

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By Herb A. Sang, Superintendent
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The most valuable legacy one generation can leave the next is knowledge. Our country is one of the most advanced countries in the world because of our accumulation of knowledge and experience. Imagine what it would be like if each generation had to start anew and refind all those things discovered by such pioneers as Edison, Bell, Ford; or even give their lives like Christa McCauliff. Our children deserve the best we have to offer regardless of race or socioeconomic status.

Despite recent efforts to provide equal education to all children, agreement exists that historically, blacks, females and disadvantaged students as a group achieve less well in mathematics and science than do white middle class students. In Duval County we feel we have an obligation to the disadvantaged student. We realize that education involves more than just the sharing of information, it requires action on that knowledge. To achieve these goals, we have developed what we call the "Mayo Clinic Approach" to education based on a team approach to not only treat the symptoms, but address the causes of those symptoms. Just as all patients are treated individually regardless of their similiar symptoms, students are treated as individuals with unique circumstances.

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Gap--Add One

Establishing a Baseline

Before the state of Florida began its competency-based testing program, Duval County eliminated social promotion by developing a basic skills progression plan requiring students to master specific competencies before progressing to the next grade level. Duval County's Essential Skills Tests (EST's) for the elementary level and the Minimum Level Skills Tests (MLST's) at the secondary level measure students' mastery of basic reading and mathematics skills. These tests are now complemented by the State Student Assessment Test (SSAT), which measures basic skills in communication and computation at the 3rd, 5th, 8th, and 11th grade levels and functional literacy at the 11th grade level. The nationally normed Scholastic Aptitude Test and the Stanford Achievement Test help chart student progress in comparison with other parts of the country. Such comprehensive testing instruments enable teachers to determine where students are lacking in basic skill performance, so they may help them overcome skill deficiencies.

Observing the Symptoms

Although the academic achievement of our students as a group is above national average as measured by the Stanford Achievement Test (SAT), black students as a group consistently score lower than white students. Because the SAT is designed to measure

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Gap--Add Two

developed abilities of verbal and mathematical reasoning and comprehension that are acquired over a period of time, a quick-fix solution would not solve the problem. In fact, despite standardized curriculum districtwide, the gap between black and white student scores only widened as students progressed through school. To understand why, Duval County's "Gap Study" focused on the differences between black and white students at each grade level. The study not only addressed concrete data like test scores and competencies, but also encompassed such factors as study skills, attitude, thinking and listening skills, and test-taking strategies.

The Stimulating Aptitude Skills (SAS) project was developed as a pilot project to see what instructional strategies could be employed to shorten the gap, specifically among high school students interested in taking the Scholastic Aptitude Test. The project was designed with the Mayo Clinic Approach in mind. Students who elected to participate in the test preparation program were evaluated to determine their particular area of deficiency, and an instructional program was then developed based on the diagnosis.

The results of the SAS project were remarkable. Black students who took the course scored an average of 65 points higher on the mathematics portion of the SAT, and 56 points

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Gap--Add Three

higher on the verbal portion than black students who did not take the course.

While improvements were made in the area of Scholastic Aptitude Test scores, a gap remained in other areas of achievement. But armed with the ability to diagnose and affect a child's individual area of need we came closer to finding a cure for the problem.

Treating the Problems

Because education is a building process and not a static one, we needed ways to encourage, motivate and help students already in school. Our Mayo Clinic Approach involves teachers, parents and the community in raising expectations for success.

The Teachers as Interpreters program provides teachers with the ability to interpret a student's scores and pinpoint deficiencies before they increase. Understanding test results is useful for the current teacher and the teacher at the next grade level. By analyzing a student's skills before the school year starts, teachers are able to develop more effective teaching strategies that meet the specific needs of each member of the class.

For many years we have spent time teaching teachers how to teach, but little time teaching students how to learn.

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Gap--Add Four

"Learn to Learn" became a school year theme that increased awareness of the importance of learning and incorporated listening and study skills into classroom presentations.

The Mayo Clinic Approach also is most useful in identifying and assisting potential dropouts and retrieving those students who have already dropped out. National studies indicate a higher dropout rate among black students than white students and it isn't any different in Jacksonville. Teenage pregnancy is a primary reason given by females for dropping out. Our Young Parents Program allows pregnant girls to remain in school throughout the pregnancy receiving academic training and preparation for the new child. The Wee Care Nursery provides short-term baby care while the mothers complete the school year or make other child-care arrangements. A Dropout Retrieval program locates students who have dropped out of school and recruits them to full-time vocational training where they complete a job training program, receive computer-assisted academic modules toward a high school completion certificate and are placed in a job.

Project BASE (Blacks for Academic Success in Education) was by far the biggest project to come out of the Gap Study. We believe that it should not be possible to predict a student's success by knowing the color of his skin. Borrowing heavily from the success of the Duval County Potential National Merit Scholars

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Gap--Add Five

Program (PNMS) that identifies academic excellence early in a child's education, a team of principals, professional development specialists and area superintendents worked to create Project BASE.

Identification and recognition of potentially high achieving students and involvement of their parents are key ingredients to the PNMS program, therefore they are keys in the BASE project. Black students in grades five through eleven with scores above the 85th percentile on the reading and/or mathematics subtests of the Stanford Achievement Test are identified. The students and their parents are then invited to a special ceremony where they are recognized and encouraged to be successful. Local businesses and churches are also involved to show community support.

Prescribing a Lifestyle Change

In our community, education is a family affair because we know where parents are involved, the children do better academically. For each of the past five years, in excess of 100,000 parents and adults have taken the time to attend Open House and see where their child spends a large portion of his time. They meet the teacher and have the opportunity to share concerns and reinforce good performances.

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Gap--Add Six

Volunteers and local businesses provide a necessary resource for all our students. For several years running, volunteers have donated more than 400,000 hours of service. Their unique abilities are channeled into services such as reinforcing vocational skills or reading to students in inner-city schools. "Inroads" is a program where minority students are placed in summer jobs to prepare them for a career after graduation. Local businesses provide the jobs and follow the student's progress. As part of the program students are required to attend business seminars and maintain close contact with their sponsor. Business meets education in the classroom in the Business Partners in Education program. Through this program employers donate time, equipment and money to local schools.

The second place a student spends his time is at home. While at home the student is expected to reinforce what he has learned in school through the completion of homework assignments. It becomes frustrating to parents and students alike when "new math" becomes the source of a family argument and nothing gets accomplished. For this reason we have developed three homework assistance programs.

Students need only pick up their phone, turn on their television or stay at school to receive help with their homework. A telephone hotline, manned by four to six teachers with all the county's textbooks and other resource materials at their

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Gap--Add Seven

fingertips is operational for all students. Students may stay at school after hours to receive assistance from volunteer teachers in the library. Weekdays during the school year, students can tune in to The Learning Hour, a special educational program on our local public broadcasting station which features call-in shows and pretaped programs.

Attitude is the essence of learning. The attitude of a student towards school, teachers and himself is so important. When a child is sad or grieving his attitude is severely affected. Through our research we learned that students have a real problem with grief. Contrary to popular belief, children don't just "bounce back" within a day or two. Children grieve like adults. Hospice of Northeast Florida helped us identify the stages of grief and how to deal with them. Two individuals in every school in our district have been specially trained to understand grief and to understand children experiencing grief. Whether Johnny loses a favorite pet or experiences a divorce in the family, there is someone at school he can turn to for guidance, caring and love.

Finding a Cure

The Gap Study made one thing very clear--changes were needed in the teachers' attitudes, expectations and instructional

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Gap--Add Eight

approaches at all grade levels if black students were to achieve to their potentials.

By diagnosing the problem and not just the symptoms we learned that black students have difficulty in auditory and listening skills. As a result black students often interpreted the teacher differently than a white student. For example when asked to spell the word "flow", black students heard the word "floor" and spelled it accordingly. The teacher would mark the mistake without realizing the problem. "Learn to Listen From the Start" was the result of this finding. In this program kindergarten students increase their auditory skills through special instructional material.

The most significant aspect of the Mayo Clinic Approach and Project BASE involved changes in the instructional program used in the schools. Research shows that teaching strategies are highly correlated with student achievement gains. "Make A Difference" is an inservice training program developed by the District's Professional Development Department to assist teachers in raising their students' achievement. The program was so named because of our belief that teachers do make a difference in the achievement of their students.

The program was divided into two waves; one wave for the 24 schools having Project BASE students, and wave two for the remaining schools. Training for this voluntary program was done

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Gap--Add Nine

by the Project BASE team who focused on instructional strategies that would benefit all students. The program's two goals were to increase teachers' feelings of efficacy--the extent to which teachers believe they have the capacity to affect student performance-- and to raise the levels of expectation that teachers have for the performance of minority students.

The Make A Difference Manual incorporates such research findings as the Pygmalion effect and the Myers-Briggs Type Indicator which aids in identifying personality types. Facilitative teaching techniques help teachers provide a classroom atmosphere that promotes growth by encouraging students to be comfortable responding and ultimately learning.

A final component of the program includes classroom observations with a peer partner through the use of the modified COKER. The COKER has proven that using consistent teaching techniques promotes student achievement gains. Working with a peer, teachers learn to code behaviors, try new behaviors and establish a successful pattern. The peer helps to instill confidence, offer encouragement and provide an unbiased report of the results. The manual is filled with examples of everyday situations and explanations of effective ways to handle those situations.

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Gap--Add Ten

Periodic Checkups/Results

The results of the Mayo Clinic Approach have been remarkable. While all students have shown gains in the reading and mathematics portions of the Stanford Achievement Test, black students have shown the greatest gain at each grade level. Black students came from scoring in the 23.4 percentile on the SAT reading portion in 1976 to the 45.6 percentile in 1986, a gain of 94.9 percent. They went from the 25.3 percentile in mathematics in 1976 to the 51.8 percentile in 1986 for a gain of 104.7 percent. The number of black juniors taking the PSAT increased from 176 in 1981-1982 to 410 in 1985-86. A 1,200 percent increase was observed in the number of black sophmores taking the PSAT.

And the remarkable results continue. Enrollment in Advanced Placement courses by black students is up 129 percent. Grade point averages are on the increase. Fifty percent of the BASE students surveyed showed improved attitudes toward school work. The number of discipline problems among BASE students has decreased. But perhaps most exciting of all is that the number of students qualified to join Project BASE has increased each year between 16 and 30 percent. Black students are improving their scores on the PSAT, the SAT and other scholastic tests. And the gap between white students' scores and black students' scores has decreased by a full seven points.

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Gap--Add Eleven

Because attitude is developed and not born, we as school administrators and teachers must feel good about ourselves and about our students. Children do rise to our level of expectancy. We must provide them with the capability and the desire to succeed. That process must begin in kindergarten. You can't make a National Merit Scholar starting in the tenth grade.

Minority students can achieve academic excellence. We are proving that in Duval County. And while our successes are many, it is an ongoing effort. I recently saw an equation that sums up our philosophy. In the equation " $S=A/E$," the "S" is success, the "A" is accomplishments and the "E" stands for expectations. Our expectations still far exceed our many accomplishments. We believe that all students deserve a chance regardless of their academic standing. It is because of this belief and our high expectations that we continue the quest for excellence armed with the ability to reduce the symptoms by diagnosing and treating the problem without forgetting the individual and his unique promise for success.

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